

Abstract

An XDSL signal distribution system is provided having a regenerator unit located a predetermined distance from a central office XTU unit for extending the distribution reach of the system. The regenerator is arranged to decode the payload of transmitted XDSL signals into base digital data before repackaging and regeneration onto a twisted pair copper cable. This allows the regenerator to selectively reformat the XDSL signals into a desired protocol format suitable for either an ATM protocol layer, or direct transmission. In addition, the regenerator can retransmit the XDSL signals at a fixed or variable transmission rate to optimize data through-put or system reach.

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